

CLAIMS (Specification designated to end with claims).

I claim:

1. A mechanical apparatus for boat anchor rest, rope guide-chock which will allow release and retrieval of anchors with mechanical buoy type pullers without removing the rope from the Anchor Assist guide, comprising:
 - a. A base and two side plates forming a vertical "U" shape from the front and rear views as the framework for the guide.
 - b. The two side plates in a. are sloped from bottom to top at 45 degrees from the rear of a towards the front until an elevation of 6 ½ inches is reached. At the front there is a vertical surface extending to a roller position. The vertical surface is the framework for the upper guides or rollers that keep the rope in the guide and positioned over the center roller during all phases of use. From the roller position the frame work takes a circular radius toward the front and continues around until it achieves a position slightly higher than the baseplate. The side plates have holes punched or drilled to accommodate the front roller and guide assembly, the vertical guide or roller assemblies and a cotter-less retaining pin yet to be discussed in f, g and i.
 - c. The baseplate in a. extends from rear to the end of the 45 degree in b. It has four mounting holes to accommodate fasteners for mounting to the structure of closed bow boats, those with a 6" minimum flat surface at gunnel-bow intersection or others with adequate modification to accommodate safe mounting.
 - d. The frame in a. is either:
 - i. Cut from a single flat piece of .025 (1/4) inch aluminum or other suitable metal and is bent at two 90 degree angles resulting in a "U" shaped bracket that is approximately one and ½ times higher than wide. The minimum inside to inside horizontal measurement is 3-1/2 inches and may be made wider to accommodate deluxe versions that include vertical rollers instead of fixed guides on the front uprights of the device.
 - ii. Cut from flat pieces of 1/4 aluminum or other suitable metal in three pieces, one base and two side plates. These side plates are then welded to

Invention: Anchor Assist - Ken Richardson 503-668-1274, Larry Richardson 503-502-0595

the base plate at two 90 degree angles resulting in a "U" shaped bracket that is approximately one and ½ times higher than wide. The minimum inside to inside horizontal measurement is 3-1/2 inches and may be made wider to accommodate deluxe versions that include vertical rollers instead of fixed guides on the front uprights of the device.

- e. A gusset plate which will form the anchor rest is placed horizontally in d. at a position which will form a platform height equal to the roller height. The gusset plate will extend from the rear of the bracket forward toward the roller position in b and will be the same length as the base plate. The gusset plate will be welded into position on b. to form the platform of the anchor rest and to increase bracket strength and uniformity.
- f. A center roller of 3-1/2 inch diameter UMHW plastic (or similar material), with a ½ inch hole at the center radius of the cylinder for spindle bolt. The cylinder (roller) width is equal to the inside width of the "U" in d.. The roller has a centered 3/4 inch deep rope guide, tapered at the beginning, ending with a vertical slot equal to the width of the intended rope diameter to be used. It is positioned in between the front frame radius noted in b.
- g. A guide made of the same diameter roller material as in f. and the same thickness as the vertical guides or rollers yet to be discussed in i. or j. is positioned outside of radius b. one on each side of the frame work.
- h. The two guides in g. and the roller in f. are secured in place with a ½ stainless steel hex bolt, washers and a lock nut. The fastener is drawn to a tightness which allows the center roller to freely rotate on its axis. The outside guides are not designed as rollers, but as abrasion protectors from contacting the metal framework during anchor operations and use. They can be modified to roll by adjusting the fastener.
- i. A vertical guide is placed on the exterior surfaces of b. These serve the same purpose as h. They extend from the roller height to the top of the bracket. , It is made of 1-1/2 cylinder of UMHW plastic (or similar material) with a 1/8 inch of the cylinder material removed from the outer cylinder radius along a vertical axis,

to form a flat mounting surface on each. They are installed above the center of the roller on the exterior of the vertical face of the bracket by means of the two holes noted in b. and two bolts and lock nuts. The lock nuts are left exposed to assist in keeping the rope on the guide during the pulling process in the event the boat position on the water surface changes significantly. There is a radius cut in this guide that matches the radius of the cylindrical guide immediately below it noted in g. The cut prevents an opening into which the anchor rope might pinch during the pulling process.

- j. Alternately a bracket and roller can be substituted for i.
 - (1) The bracket is manufactured from preformed channel stock and cut in a tapered shape with a radius slightly smaller than the roller stock. A 3/8" hole is drilled in near center of the radius, adjusted to accommodate the roller size. The bottom hole is tapped with threads. The bracket is welded to d. positioning it at the location of i.
 - (2) The roller is secured by a 3/8 fastener serving as a roller spindle.
- k. A cotter-less keeper pin is placed in the upper rearmost 5/16 inch hole to secure the anchor during transport or storage. The pin is placed through one side, above the anchor and through one the anchors breakaway chain links and into the hole on the opposite side. A hole through the anchor shaft may be used alternately.
- l. The details in the above description illustrate some preferred embodiments and should not be construed as a limitation on the scope of the invention. The completed device, either version, is of unique design and as described in the detailed description is unique in the ability to store the anchor, drop the anchor and retrieve the anchor with retrieval mechanisms without requiring the removal of the rope. The features designed to work with the retrieval mechanisms, also allow it to function well as a standard bow chock or guide for an un-buoyed anchor line and anchor.